

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: July 1, 2003, 08:41:43 ; Search time 15 Seconds
(without alignments)
435.459 Million cell updates/sec

Title: US-09-508-710-2

Perfect score: 1173

Sequence: 1 MAGEKGLVLLDFWSPFQGR.....YSPDKVYDFIGLKKYKIE 222

Scoring table: BIOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued_Patents_AA.*
1: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
2: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
3: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
4: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
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6: /cgn2_6/ptodata/1/1aa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	857	73.1	224	2	US-08-924-759-22
2	857	73.1	224	3	US-09-248-335-22
3	818.5	69.8	225	2	US-08-924-759-12
4	818.5	69.8	225	3	US-09-248-335-12
5	683.5	58.3	219	3	US-08-924-747-6
6	683.5	58.3	219	4	US-09-296-715-6
7	681	58.1	218	4	US-09-247-373B-6
8	664.5	56.6	219	3	US-08-924-747-20
9	664.5	56.6	219	4	US-09-247-373B-20
10	664.5	56.6	219	4	US-09-296-715-20
11	639	54.5	216	3	US-08-924-747-12
12	639	54.5	216	4	US-09-247-373B-12
13	639	54.5	216	4	US-09-296-715-12
14	601.5	51.3	200	3	US-08-924-747-18
15	601.5	51.3	200	4	US-09-247-373B-18
16	601.5	51.3	200	4	US-09-296-715-18
17	566.5	48.3	221	4	US-09-247-373B-44
18	488	43.6	230	3	US-09-248-335-44
19	480	40.9	147	1	US-08-525-507-2
20	432.5	36.9	237	3	US-09-248-335-48
21	431.5	36.8	225	3	US-09-248-335-40
22	430	36.7	228	3	US-09-248-335-70
23	426.5	36.4	231	3	US-09-248-335-54
24	406	34.6	236	3	US-09-248-335-74
25	401	34.2	238	3	US-09-248-335-38
26	399.5	34.1	233	3	US-09-248-335-60
27	389.5	33.2	235	3	US-08-924-747-24

28	389.5	33.2	235	4	US-09-247-373B-24	Sequence 24, Appl
29	389.5	33.2	235	4	US-09-296-715-24	Sequence 24, Appl
30	383	32.7	240	3	US-09-248-335-42	Sequence 42, Appl
31	382.5	32.6	235	3	US-09-248-335-64	Sequence 64, Appl
32	380	32.4	236	3	US-09-248-335-68	Sequence 68, Appl
33	376.5	32.1	222	3	US-09-248-335-66	Sequence 66, Appl
34	374	31.9	227	3	US-09-248-335-46	Sequence 46, Appl
35	372.5	31.8	225	3	US-09-248-335-62	Sequence 62, Appl
36	370	31.5	232	3	US-09-248-335-56	Sequence 56, Appl
37	366	31.2	203	3	US-09-248-335-58	Sequence 58, Appl
38	365.5	31.2	234	3	US-09-248-335-52	Sequence 52, Appl
39	365	31.1	229	4	US-09-247-373B-48	Sequence 48, Appl
40	364	31.0	220	3	US-08-924-747-26	Sequence 26, Appl
41	364	31.0	220	4	US-09-247-373B-26	Sequence 26, Appl
42	364	31.0	220	4	US-09-296-715-26	Sequence 26, Appl
43	360.5	30.7	225	4	US-09-247-373B-36	Sequence 36, Appl
44	359.5	30.6	235	2	US-08-924-759-10	Sequence 10, Appl
45	359.5	30.6	235	3	US-09-248-335-10	Sequence 10, Appl

ALIGNMENTS

RESULT 1
US-08-924-759-22
; Sequence 22, Application US/08924759
; Patent No. 5962229
; GENERAL INFORMATION:
; APPLICANT: MCGONIGLE, BRIAN
; TITLE OF INVENTION: PLANT GLUTATHIONE-S-TRANSFERASE
; NUMBER OF INVENTION: ENZYMES
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: E.I. DU PONT DE NEMOURS AND COMPANY
; STREET: 1007 MARKET STREET
; CITY: WILMINGTON
; STATE: DELAWARE
; COUNTRY: UNITED STATES OF AMERICA
; ZIP: 19898
; COMPUTER READABLE FORM:
; MEDIUM TYPE: DISKETTE, 3.50 INCH
; COMPUTER: IBM PC COMPATIBLE
; OPERATING SYSTEM: MICROSOFT WORD FOR WINDOWS 95
; SOFTWARE: MICROSOFT WORD VERSION 7.0A
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/924,759
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: FLOYD, LINDA AXAMETHY
; REGISTRATION NUMBER: 33,692
; REFERENCE/DOCKET NUMBER: CL-1128
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 302-892-8112
; TELEFAX: 302-773-0164
; INFORMATION FOR SEQ ID NO: 22:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 224 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: not relevant
; MOLECULE TYPE: protein
; ORIGINAL SOURCE:
; TISSUE TYPE: MAIZE
; IMMEDIATE SOURCE:
; CLONE: CEB5.PK0049.A11
US-08-924-759-22

Query Match 73.1%; Score 857; DB 2; Length 224;
Best Local Similarity 72.9%; Pred. No. 9, 7e-91;
Matches 164; Conservative 27; Mismatches 30; Indels 4; Gaps 3;

Db 5 VLLDFWSPFGMRVRIALAEKGIYEYKEEDL-RNKSPDLLQNPVHKKIPVLIHNGKP 63
QY 67 VNESLILOYLEAFDAPALLPSDPYARAQARFADYDKKVVYDCGSRMLKLGEPQAO 126
Db 64 ISESLIAVQYIEVWVNDPPLPSDPYARAQARFADYDKIHDGLGKIWTSGEKEA 123
QY 127 ARAMLDILKTLGALGDKPFGGDKFGFVDAAPFTAFWPHSYERYGFSLSPEVAPKIA 186
Db 124 AKKEFIALKLEQLGDKTYFGDNGTGFVDIALVPFTWFKVYETFGSLNIENECPRFV 183
QY 187 AWAKRCGERESVAKSLSPDKVYDFIGLLKKKYGIE 222
Db 184 AWAKRCQKESVAKSLPDQHKVYEFVVEIRKKLVIE 219

RESULT 10

US-09-296-715-20
; Sequence 20, Application US/09296715
; Patent No. 6171839
; GENERAL INFORMATION:
; APPLICANT: MCGONIGLE, BRIAN
; APPLICANT: O'KEEFE, DANIEL
; TITLE OF INVENTION: SOYBEAN GLUTATHIONE-S-TRANSFERASE
; TITLE OF INVENTION: ENZYMES
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: E.I. DU PONT DE NEMOURS AND COMPANY
; STREET: 1007 MARKET STREET
; CITY: WILMINGTON
; STATE: DELAWARE
; COUNTRY: UNITED STATES OF AMERICA
; ZIP: 19898
; COMPUTER READABLE FORM:
; MEDIUM TYPE: DISKETTE, 3.50 INCH
; COMPUTER: IBM PC COMPATIBLE
; OPERATING SYSTEM: MICROSOFT WORD FOR WINDOWS 95
; SOFTWARE: MICROSOFT WORD VERSION 7.0A
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/296,715
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: FLOYD, LINDA AXAMETHY
; REGISTRATION NUMBER: 33,692
; REFERENCE/DOCKET NUMBER: CL-1108
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 302-892-8112
; TELEFAX: 302-773-0164
; INFORMATION FOR SEQ ID NO: 20:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 219 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: not relevant
; MOLECULE TYPE: protein
; ORIGINAL SOURCE: SOYBEAN
; TISSUE TYPE: SOYBEAN
; IMMEDIATE SOURCE:
; CLONE: SSL.PK0005.E6

US-09-296-715-20

Query Match 56.6%; Score 664.5; DB 4; Length 219;
Best Local Similarity 57.9%; Pred. No. 1.4e-68;
Matches 125; Conservative 31; Mismatches 59; Indels 1; Gaps 1;

QY 7 LVLLDFWSPFGMRVRIALAEKGLPYEYAEEDLMAGKSDRLLRANPVHKKIPVLIHDGRA 66
Db 5 VLLDFWSPFGMRVRIALAEKGIYEYKEEDL-RNKSPDLLQNPVHKKIPVLIHNGKP 63
QY 67 VNESLILOYLEAFDAPALLPSDPYARAQARFADYDKKVVYDCGSRMLKLGEPQAO 126
Db 64 ISESLIAVQYIEVWVNDPPLPSDPYARAQARFADYDKIHDGLGKIWTSGEKEA 123

QY 127 ARAMLDILKTLGALGDKPFGGDKFGFVDAAPFTAFWPHSYERYGFSLSPEVAPKIA 186
Db 124 AKKEFIALKLEQLGDKTYFGDNGTGFVDIALVPFTWFKVYETFGSLNIENECPRFV 183
QY 187 AWAKRCGERESVAKSLSPDKVYDFIGLLKKKYGIE 222
Db 184 AWAKRCQKESVAKSLPDQHKVYEFVVEIRKKLVIE 219

RESULT 11

US-08-924-747-12
; Sequence 12, Application US/08924747
; Patent No. 6063570
; GENERAL INFORMATION:
; APPLICANT: MCGONIGLE, BRIAN
; APPLICANT: O'KEEFE, DANIEL
; TITLE OF INVENTION: SOYBEAN GLUTATHIONE-S-TRANSFERASE
; TITLE OF INVENTION: ENZYMES
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: E.I. DU PONT DE NEMOURS AND COMPANY
; STREET: 1007 MARKET STREET
; CITY: WILMINGTON
; STATE: DELAWARE
; COUNTRY: UNITED STATES OF AMERICA
; ZIP: 19898
; COMPUTER READABLE FORM:
; MEDIUM TYPE: DISKETTE, 3.50 INCH
; COMPUTER: IBM PC COMPATIBLE
; OPERATING SYSTEM: MICROSOFT WORD FOR WINDOWS 95
; SOFTWARE: MICROSOFT WORD VERSION 7.0A
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/924,747
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: FLOYD, LINDA AXAMETHY
; REGISTRATION NUMBER: 33,692
; REFERENCE/DOCKET NUMBER: CL-1108
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 302-892-8112
; TELEFAX: 302-773-0164
; INFORMATION FOR SEQ ID NO: 12:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 216 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: not relevant
; MOLECULE TYPE: protein
; ORIGINAL SOURCE:
; TISSUE TYPE: SOYBEAN
; IMMEDIATE SOURCE:
; CLONE: SE6.PK0048.D7

US-08-924-747-12

Query Match 54.5%; Score 639; DB 3; Length 216;
Best Local Similarity 55.9%; Pred. No. 1.2e-65;
Matches 124; Conservative 33; Mismatches 59; Indels 6; Gaps 3;

QY 1 MAGEKGLVLLDFWSPFGMRVRIALAEKGLPYEYAEEDLMAGKSDRLLRANPVHKKIPVL 60
Db 1 MADE--VLLDFWSPFGMRVRIALAEKGIKYESKEEDLQ-NKSPILLKXNPVHKKIPVL 57
QY 61 LHDGRAVNSLILOYLEAFDAPALLPSDPYARAQARFADYDKKVVYDCGSRMLK 120
Db 58 IHNGKPICESLVAQYIEVWVNDPPLPSDPYARAQARFADYDKIHDGLGKIWT 117
QY 121 GPEQAARAEMLDILKTLGALGDKPFGGDKFGFVDAAPFTAFWPHSYERYGFSLSPE 180
Db 118 GEKEAKKEFIALKLEQLGDKTYFGDNGTGFVDIALVPFTWFKVYETFGSLNIES 174
QY 181 VAPKIAAWAKRCGERESVAKSLSPDKVYDFIGLLKKKYGIE 222

Db 175 ECPKFAWAKRCLQKDSVAKSLPDQHKVYEFIMDIRKKFDIE 216

RESULT 12

US-09-247-373B-12

; Sequence 12, Application US/09247373B

; Patent No. 6168954

; GENERAL INFORMATION:

; APPLICANT: MCGONIGLE, BRIAN

; APPLICANT: O'KEEFE, DANIEL

; TITLE OF INVENTION: SOYBEAN GLUTATHIONE-S-TRANSFERASE ENZYMES

; FILE REFERENCE: CL-1108-A

; CURRENT APPLICATION NUMBER: US/09/247.373B

; CURRENT FILING DATE: 1999-02-10

; PRIOR APPLICATION NUMBER: 08/924,747

; PRIOR FILING DATE: 1997-09-05

; NUMBER OF SEQ ID NOS: 56

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 12

; LENGTH: 216

; TYPE: PRT

; ORGANISM: SOYBEAN

US-09-247-373B-12

Query Match 54.5%; Score 639; DB 4; Length 216;

Best Local Similarity 55.9%; Pred. No. 1.2e-65;

Matches 124; Conservative 33; Mismatches 59; Indels 6; Gaps 3;

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QY 1 MAGEKGLVLLDFWSPFGQVRIRIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKIPVL 60
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 MADE--VLLDFWSPFGMRVIRIALAEKGIKYESKEEDLQ--NKSPLLLKMPVHKIPVL 57
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 61 LHDGRAVNESLIIQLYLEEAPDPAPALLPSDPYARAQARFADYVKKVYDCGSRLLKWLK 120
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 58 IHNGKPICESLVAYQIEEVVNDNRNPLLPSPYQARAQARFADVFNKIFDLGRKIWTSK 117
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 121 GEPOAQAARAEMDLITKIDGALGDKPFGGDKFGVDAAPAFPTAFWHSYERYGEFSLPE 180
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 118 GEEKAARKEFEALKLEEQDKTYFGDDLGFDVIALIPFDTWf---KTFGSLNIES 174
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 181 VAPKIAAWAKRCGERESVAKSLYSPDKVYDFIGLLKKYKIE 222
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 175 ECPKFAWAKRCLQKDSVAKSLPDQHKVYEFIMDIRKKFDIE 216
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
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RESULT 13

US-09-296-715-12

; Sequence 12, Application US/09296715

; Patent No. 6171839

; GENERAL INFORMATION:

; APPLICANT: MCGONIGLE, BRIAN

; APPLICANT: O'KEEFE, DANIEL

; TITLE OF INVENTION: SOYBEAN GLUTATHIONE-S-TRANSFERASE

; TITLE OF INVENTION: ENZYMES

; NUMBER OF SEQUENCES: 32

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: E.I. DU PONT DE NEMOURS AND COMPANY

; STREET: 1007 MARKET STREET

; CITY: WILMINGTON

; STATE: DELAWARE

; COUNTRY: UNITED STATES OF AMERICA

; ZIP: 19898

; COMPUTER READABLE FORM:

; MEDIUM TYPE: DISKETTE, 3.50 INCH

; COMPUTER: IBM PC COMPATIBLE

; OPERATING SYSTEM: MICROSOFT WORD FOR WINDOWS 95

; SOFTWARE: MICROSOFT WORD VERSION 7.0A

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/296.715

; FILING DATE:

; CLASSIFICATION:

; ATTORNEY/AGENT INFORMATION:

; NAME: FLOYD, LINDA AXAMETHY

; REGISTRATION NUMBER: 33,692

; REFERENCE/DOCKET NUMBER: CL-1108

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 302-892-8112

; TELEFAX: 302-773-0164

; INFORMATION FOR SEQ ID NO: 12:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 216 amino acids

; TYPE: amino acid

; STRANDEDNESS: not relevant

; TOPOLOGY: not relevant

; MOLECULE TYPE: protein

; ORIGINAL SOURCE:

; TISSUE TYPE: SOYBEAN

; IMMEDIATE SOURCE:

; CLONE: SEG. PK0048.D7

US-09-296-715-12

Query Match 54.5%; Score 639; DB 4; Length 216;

Best Local Similarity 55.9%; Pred. No. 1.2e-65;

Matches 124; Conservative 33; Mismatches 59; Indels 6; Gaps 3;

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QY 1 MAGEKGLVLLDFWSPFGQVRIRIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKIPVL 60
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1 MADE--VLLDFWSPFGMRVIRIALAEKGIKYESKEEDLQ--NKSPLLLKMPVHKIPVL 57
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 61 LHDGRAVNESLIIQLYLEEAPDPAPALLPSDPYARAQARFADYVKKVYDCGSRLLKWLK 120
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 58 IHNGKPICESLVAYQIEEVVNDNRNPLLPSPYQARAQARFADVFNKIFDLGRKIWTSK 117
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 121 GEPOAQAARAEMDLITKIDGALGDKPFGGDKFGVDAAPAFPTAFWHSYERYGEFSLPE 180
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 118 GEEKAARKEFEALKLEEQDKTYFGDDLGFDVIALIPFDTWf---KTFGSLNIES 174
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
QY 181 VAPKIAAWAKRCGERESVAKSLYSPDKVYDFIGLLKKYKIE 222
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 175 ECPKFAWAKRCLQKDSVAKSLPDQHKVYEFIMDIRKKFDIE 216
    ||| :||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
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RESULT 14

US-08-924-747-18

; Sequence 18, Application US/08924747

; Patent No. 6063570

; GENERAL INFORMATION:

; APPLICANT: MCGONIGLE, BRIAN

; APPLICANT: O'KEEFE, DANIEL

; TITLE OF INVENTION: SOYBEAN GLUTATHIONE-S-TRANSFERASE

; TITLE OF INVENTION: ENZYMES

; NUMBER OF SEQUENCES: 32

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: E.I. DU PONT DE NEMOURS AND COMPANY

; STREET: 1007 MARKET STREET

; CITY: WILMINGTON

; STATE: DELAWARE

; COUNTRY: UNITED STATES OF AMERICA

; ZIP: 19898

; COMPUTER READABLE FORM:

; MEDIUM TYPE: DISKETTE, 3.50 INCH

; COMPUTER: IBM PC COMPATIBLE

; OPERATING SYSTEM: MICROSOFT WORD FOR WINDOWS 95

; SOFTWARE: MICROSOFT WORD VERSION 7.0A

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/924,747

; FILING DATE:

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: FLOYD, LINDA AXAMETHY

; REGISTRATION NUMBER: 33,692

; REFERENCE/DOCKET NUMBER: CL-1108

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 302-892-8112

; TELEFAX: 302-773-0164

; INFORMATION FOR SEQ ID NO: 18:

Search completed: July 1, 2003, 09:00:58
Job time : 16 secs

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/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 200 amino acids
/ TYPE: amino acid
/ STRANDEDNESS: not relevant
/ TOPOLOGY: not relevant
/ MOLECULE TYPE: protein
/ ORIGINAL SOURCE: SOYBEAN
/ TISSUE TYPE: SOYBEAN
/ IMMEDIATE SOURCE:
/ CLONE: SSL.PK0002.F7
US-08-924-747-18

Query Match
Best Local Similarity 51.3%; Score 601.5; DB 3; Length 200;
Matches 109; Conservative 32; Mismatches 55; Indels 1; Gaps 1;

QY 6 GLVLLDFWSPFGQVRIRIALAEKGLPEYEAEDLMAGKSDRLLRANPVHKKIPVLLHDGR 65
Db 4 GVYLLDTWASFMGMRVIRIALAEKGVYEYKEENL-RNKSPLLQLQMNPIHKKIPVLIHNG 62
QY 66 AVNESLIIQLYLEAFDPDAPALLPSDPYARAQARFWADYVKKVYDCGSRLLKLGEPQA 125
Db 63 PICESAIIVQYIDEVWNDKAPILPSDPYERAQARFWYDIDKKVYDTWRKMWLSKGEHE 122
QY 126 QARAEMLDILKTLDGALGDKPFGGDKFGFVDAAFAPFTAWFHSHYERYGEFSLPEVAPKI 185
Db 123 AGKKEFISIFKQLEETLSDKAYGSDTFGLDIGLIPFYSWFYTFETYGNFKMEECPKL 182
QY 186 AAWAKRCGERESVAKSL 202
Db 183 VAWAKRCMQREAVSKSL 199

RESULT 15
US-09-247-373B-18
/ Sequence 18, Application US/09247373B
/ Patent No. 6168954
/ GENERAL INFORMATION:
/ APPLICANT: MCGONIGLE, BRIAN
/ APPLICANT: O'KEEFE, DANIEL
/ TITLE OF INVENTION: SOYBEAN GLUTATHIONE-S-TRANSFERASE ENZYMES
/ FILE REFERENCE: CL-1108-A
/ CURRENT APPLICATION NUMBER: US/09/247,373B
/ PRIOR FILING DATE: 1999-02-10
/ PRIOR APPLICATION NUMBER: 08/924,747
/ PRIOR FILING DATE: 1997-09-05
/ NUMBER OF SEQ ID NOS: 56
/ SOFTWARE: Microsoft Office 97
/ SEQ ID NO 18
/ LENGTH: 200
/ TYPE: PRT
/ ORGANISM: SOYBEAN
US-09-247-373B-18

Query Match
Best Local Similarity 51.3%; Score 601.5; DB 4; Length 200;
Matches 109; Conservative 32; Mismatches 55; Indels 1; Gaps 1;

QY 6 GLVLLDFWSPFGQVRIRIALAEKGLPEYEAEDLMAGKSDRLLRANPVHKKIPVLLHDGR 65
Db 4 GVYLLDTWASFMGMRVIRIALAEKGVYEYKEENL-RNKSPLLQLQMNPIHKKIPVLIHNG 62
QY 66 AVNESLIIQLYLEAFDPDAPALLPSDPYARAQARFWADYVKKVYDCGSRLLKLGEPQA 125
Db 63 PICESAIIVQYIDEVWNDKAPILPSDPYERAQARFWYDIDKKVYDTWRKMWLSKGEHE 122
QY 126 QARAEMLDILKTLDGALGDKPFGGDKFGFVDAAFAPFTAWFHSHYERYGEFSLPEVAPKI 185
Db 123 AGKKEFISIFKQLEETLSDKAYGSDTFGLDIGLIPFYSWFYTFETYGNFKMEECPKL 182
QY 186 AAWAKRCGERESVAKSL 202
Db 183 VAWAKRCMQREAVSKSL 199
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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: July 1, 2003, 08:53:35 ; Search time 21 Seconds
(without alignments)
1159.124 Million cell updates/sec

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Title: US-09-508-710-2
Perfect score: 1173
Sequence: 1 MAGEKGLVLLDFWVSFGQR.....YSPDKVYDFIGLLKKKYGIE 222

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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 424699 seqs, 109646833 residues
Total number of hits satisfying chosen parameters: 424699

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Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Database : Published_Applications_AA:*
1: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep.*
5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
6: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
7: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep.*
8: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
9: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
10: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep.*
11: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
12: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep.*
13: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
14: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*
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SUMMARIES

Result No.	Query			DB	ID	Description
	Score	Match	Length			
1	405.5	34.6	236	10	US-09-765-213A-9	Sequence 9, Appli
2	362.5	30.9	229	10	US-09-765-213A-8	Sequence 8, Appli
3	334	28.5	233	10	US-09-765-213A-2	Sequence 2, Appli
4	331.5	28.3	225	10	US-09-765-213A-7	Sequence 7, Appli
5	320.5	27.3	224	10	US-09-765-213A-11	Sequence 11, Appli
6	319	27.2	233	10	US-09-765-213A-4	Sequence 4, Appli
7	309	26.3	233	10	US-09-765-213A-6	Sequence 6, Appli
8	231	24.8	240	10	US-09-765-213A-10	Sequence 10, Appli
9	235	20.0	83	10	US-09-050-010-7	Sequence 7, Appli
10	198	16.9	212	10	US-09-741-669-351	Sequence 351, App
11	172.5	14.7	241	9	US-09-854-133-194	Sequence 194, App
12	172.5	14.7	241	9	US-10-225-273-4	Sequence 4, Appli
13	172.5	14.7	241	10	US-09-738-973-194	Sequence 194, App
14	172.5	14.7	286	10	US-09-925-302-653	Sequence 653, App
15	167.5	14.3	241	9	US-09-854-133-204	Sequence 204, App
16	167.5	14.3	241	10	US-09-738-973-204	Sequence 204, App
17	129.5	11.0	86	10	US-09-050-010-6	Sequence 6, Appli
18	124	10.6	195	9	US-09-798-889-164	Sequence 164, App
19	121.5	10.4	263	9	US-09-769-787-68	Sequence 68, Appli

ALIGNMENTS

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RESULT 1
US-09-765-213A-9
; Sequence 9, Application US/09765213A
; Patent No. US20020079846A1
; GENERAL INFORMATION:
; APPLICANT: Facchini, Peter J
; TITLE OF INVENTION: No. US20020079846A1el Glutathione-S-Transferase Nucleic Acids
; TITLE OF INVENTION: Polypeptides and Methods of Use
; FILE REFERENCE: 22542-001
; CURRENT APPLICATION NUMBER: US/09765.213A
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 60/1176708
; PRIOR FILING DATE: 2000-01-18
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 9
; LENGTH: 236
; TYPE: PRT
; ORGANISM: Picea mariana
US-09-765-213A-9

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Query Match	34.6%	Score	405.5	DB	10	Length	236
Best Local Similarity	42.3%	Pred. No.	7.5e-35				
Matches	96	Conservative	40	Mismatches	80	Indels	11
Gaps	5						
QY	3	GERGLV	LLDFWSPFGQ	RVRIALAEKGLPEVAEEDLMAGKSDRLRLRANP	VHKKI	PVLL	61
Db							
Db	5	GEAAQVKLLGGN	ISPFVLR	RVRIALALAGIDYEFTEN	MQNKSHLLLSQSPV	NKKI	PVLI
Db							
QY	62	HGRGAVNESL	LILOYLEBAF	-PDAPALLPSDPY	ARAQAFWADY	KKVYDCG	SRLLKWLK
Db							
QY	64	HNGKPVCE	SMIIQYID	EAWDTKAPVLM	KDPDYDRAIAREFAAFV	DKLLPCLRG	VGVFKG
Db							
QY	121	GEPOAQAR	EAMDLILKTL	DGAL-----GKPF	FGDGKFCF	VDAAAPAF	FWHSYERYG
Db							
QY	124	GEQQKALE	SGSASFLLLE	RAIRTS	CHFCGKPIFG	GEIGFLD	IALGGMALFAVKALEKVT
Db							
QY	175	EFSL--	PEVAPKTA	AAWAKRCGER	SVAKSLYSPDK	VYDFI	GLKKKY
Db							
QY	184	NLVLIQER	KPLLSITW	NRECEADGV	KDVMPDP	AKLQEFIS	AI
Db							

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RESULT 2
US-09-765-213A-8
; Sequence 8, Application US/09765213A
; Patent No. US20020079846A1
; GENERAL INFORMATION:
; APPLICANT: Facchini, Peter J
; TITLE OF INVENTION: No. US20020079846A1e1 Glutathione-S-Transferase Nucleic Acids and
; FILE OF INVENTION: Polypeptides and Methods of Use
; FILE REFERENCE: 22542-001
; CURRENT APPLICATION NUMBER: US/09/765,213A
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 60/176708
; PRIOR FILING DATE: 2000-01-18
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 8
; LENGTH: 229
; TYPE: PRT
; ORGANISM: Aegilops squarrosa
US-09-765-213A-8

Query Match      30.9%; Score 362.5; DB 10; Length 229;
Best Local Similarity 42.3%; Pred. No. 2.5e-30;
Matches 93; Conservative 33; Mismatches 79; Indels 15; Gaps 8;

QY 2 AGEKGLVLDFWVSPFGQVRVIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKKIPVLL 61
Db 3 AGDDDLKLLGAWPSPVTRVKLALAKGLSYEDVEDLYK-KSELLKSNPVHKKIPVLI 61
QY 62 HGRVAVNESLIIQYLEEAFPPD-APALLSPDYARAQARFWADYDKKYDYGSRLLWKLK 120
Db 62 HNGAPVCESNIIQYIDYFVFASTGPSLLPADPYERAIARFWAVDDKLV--APWRQW-LR 118
QY 121 G---EPQQAARAEMLDILKALGD----KPFEGDGFVDAAPFTAFWTHSYERY 173
Db 119 GTEEEKSGKKQAFVAVLEGALRECSKGGGFGDGVG-LDVALGGVLSMMKVTEAL 177
QY 174 GFSLPEVA--PKIAAWAKRCGERESVAKSLYSPDKVYDF 211
Db 178 SGDGIKFAAKTPLLAAWVERFELDRKAALPDVGRLEEF 217

RESULT 3
US-09-765-213A-2
; Sequence 2, Application US/09765213A
; Patent No. US20020079846A1
; GENERAL INFORMATION:
; APPLICANT: Facchini, Peter J
; TITLE OF INVENTION: No. US20020079846A1e1 Glutathione-S-Transferase Nucleic Acids and
; FILE OF INVENTION: Polypeptides and Methods of Use
; FILE REFERENCE: 22542-001
; CURRENT APPLICATION NUMBER: US/09/765,213A
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 60/176708
; PRIOR FILING DATE: 2000-01-18
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 2
; LENGTH: 233
; TYPE: PRT
; ORGANISM: Papaver somniferum
US-09-765-213A-2

Query Match      28.5%; Score 334; DB 10; Length 233;
Best Local Similarity 35.1%; Pred. No. 2.7e-27;
Matches 81; Conservative 42; Mismatches 88; Indels 20; Gaps 7;

QY 2 AGEKGLVLDFWVSPFGQVRVIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKKIPVLL 61
Db 4 SGSEEVKILGGWSPFVMPRPNALNKSVKY-YLLEETFGSKSELLKSNPIYKRPVLI 62
QY 62 HGRVAVNESLIIQYLEEAFPPD-PALLSPDYARAQARFWADYDKKYDYGSRLLWKLK 120
Db 62 HGRVAVNESLIIQYLEEAFPPD-PALLSPDYARAQARFWADYDKKYDYGSRLLWKLK 120

Db 63 HGDKPICESMIIVQYIDYVWASAGHSIIIPSDPYDASIARFWATYIDDKFPFSLMGIASK 122
QY 121 GEPQAARAEM-----LDIL-----KTLDGALGDKPFGGDKFGFVDAAPFTAFWTHSYE 171
Db 123 DAEERKAAIEQAIAAFGILAEAYQKTSKG----KDFGGEKIGYVDIAFGCYVGVIRVTE 178
QY 172 RYGEFSL--PEVAPKIAAWAKRCGERESVAKSLYSPDKVYDFIGLLKKKYG 220
Db 179 KMGIKLFDEEKVPGLTKWAERFCADETKVSVMPTDALMEF---AKKIFG 226

RESULT 4
US-09-765-213A-7
; Sequence 7, Application US/09765213A
; Patent No. US20020079846A1
; GENERAL INFORMATION:
; APPLICANT: Facchini, Peter J
; TITLE OF INVENTION: No. US20020079846A1e1 Glutathione-S-Transferase Nucleic Acids
; FILE OF INVENTION: Polypeptides and Methods of Use
; FILE REFERENCE: 22542-001
; CURRENT APPLICATION NUMBER: US/09/765,213A
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 60/176708
; PRIOR FILING DATE: 2000-01-18
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 7
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-765-213A-7

Query Match      28.3%; Score 331.5; DB 10; Length 225;
Best Local Similarity 34.7%; Pred. No. 4.7e-27;
Matches 82; Conservative 46; Mismatches 83; Indels 25; Gaps 9;

QY 1 MAGEKGLVLDFWVSPFGQVRVIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKKIPV 59
Db 1 MAQNTVTLIGWSSPYSILRAVALHLKSVKYEYLDPEVLKESKSELLKSNPIHKKVPV 60
QY 60 LLHGRVAVNESLIIQYLEEAFPPDAPALLSPDYARAQARFWADYDKKYDYGSRLLWKL 119
Db 61 LLHGDLSISESLNVVQY-DEAWPSVPSILPSDAYDRASARFWAQIDDK---CFAAVDAV 115
QY 120 KG----EPQQAARAEMLDILKALGD----GALGDKPFGGDKFGFVDAAPFTAFWTH 168
Db 116 VGAKDDEGMAAVGKLMCELAILEETFKSSKGLG---FFGGETIGYLDIACSLGPTS 172
QY 169 SYERYG--BFSLEVPAPKIAAWAKRCGERESVAKSLYSPDKVYDFIGLLKKKYGIE 222
Db 173 VIEAFSGVKFLRQETTPGLIKWAERFRAHEAVKP--YMP-TVEEVVAFKQKFNQV 225

RESULT 5
US-09-765-213A-11
; Sequence 11, Application US/09765213A
; Patent No. US20020079846A1
; GENERAL INFORMATION:
; APPLICANT: Facchini, Peter J
; TITLE OF INVENTION: No. US20020079846A1e1 Glutathione-S-Transferase Nucleic Acids
; FILE OF INVENTION: Polypeptides and Methods of Use
; FILE REFERENCE: 22542-001
; CURRENT APPLICATION NUMBER: US/09/765,213A
; CURRENT FILING DATE: 2001-01-17
; PRIOR APPLICATION NUMBER: 60/176708
; PRIOR FILING DATE: 2000-01-18
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 11
; LENGTH: 224
; TYPE: PRT
; ORGANISM: Glycine max
US-09-765-213A-11
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; CURRENT APPLICATION NUMBER: US/09/854,133
; CURRENT FILING DATE: 2001-05-11
; NUMBER OF SEQ ID NOS: 735
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 194
; LENGTH: 241
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-854-133-194

Query Match
Best Local Similarity 14.7%; Score 172.5; DB 9; Length 241;
Matches 58; Conservative 28; Mismatches 107; Indels 9; Gaps 6;

QY 16 PFQGRVRIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKKIPVLLH-DGRAVNESLIIL 74
Db 33 PFAERTRLVLKAGIRHEVINIL-KNKPEWFFKKNP-FGLVPVLENSQGOLIVESAITC 90
QY 75 OYLLEAPDPAPALLPSPDYARAQARFWADYVDKKVYDCGSRMLWKKEGPQARAEMLDI 134
Db 91 EYLDEAYP-GKKLLPDDPYEKACQKMTLELFSKVPSPVLSVGSFIRSNKEDYAGLKEEFRKE 149
QY 135 LKTLDGALGDK--PFFGDKFGFVDAFAFPTAMFHSYERYGEFSLPEVAPKIAAWKRC 192
Db 150 FTKLEEVLTNKKTTFFGNSISMDIYLWP---WFERLEAMKLNCEVDHTPKLLNMAAM 206
QY 193 GERESVAKSLYSPDKVYDFIGL 214
Db 207 KEDPTVSALLTSEKDWQGFLEL 228

RESULT 12
US-10-225-273-4
; Sequence 4, Application US/10225273
; Publication No. US20030027217A1
; GENERAL INFORMATION:
; APPLICANT: Pfizer Inc.
; APPLICANT: Gabel, Christopher A.
; APPLICANT: Dombroski, Mark A.
; APPLICANT: Geoghegan, Kieran
; APPLICANT: Griffiths, Richard J.
; APPLICANT: Egler, James F.
; TITLE OF INVENTION: DIARYLSULFONYLUREA BINDING PROTEINS
; FILE REFERENCE: FC9860B
; CURRENT APPLICATION NUMBER: US/10/225,273
; CURRENT FILING DATE: 2002-08-21
; PRIOR APPLICATION NUMBER: 09/387,372
; PRIOR FILING DATE: 1999-08-31
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 241
; TYPE: PRT
; ORGANISM: Homo Sapiens
US-10-225-273-4

Query Match
Best Local Similarity 14.7%; Score 172.5; DB 9; Length 241;
Matches 58; Conservative 28; Mismatches 107; Indels 9; Gaps 6;

QY 16 PFQGRVRIALAEKGLPYEAEEDLMAGKSDRLLRANPVHKKIPVLLH-DGRAVNESLIIL 74
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QY 75 OYLLEAPDPAPALLPSPDYARAQARFWADYVDKKVYDCGSRMLWKKEGPQARAEMLDI 134
Db 91 EYLDEAYP-GKKLLPDDPYEKACQKMTLELFSKVPSPVLSVGSFIRSNKEDYAGLKEEFRKE 149
QY 135 LKTLDGALGDK--PFFGDKFGFVDAFAFPTAMFHSYERYGEFSLPEVAPKIAAWKRC 192
Db 150 FTKLEEVLTNKKTTFFGNSISMDIYLWP---WFERLEAMKLNCEVDHTPKLLNMAAM 206
QY 193 GERESVAKSLYSPDKVYDFIGL 214

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Query Match	14.3%	Score 167.5;	DB 9;	Length 241;
Best Local Similarity	28.6%;	Pred. No. 1.2e-09;		
Matches	60;	Conservative 28;	Mismatches 97;	Indels 25; Gaps 8;
Qy	16	PFGQVRVIALAEKGLPYEABEDLMACKSDRLLRANPVHKKIPVLH-DGRAVNESLIL	74	
Db	33	PPAERTRLVLRKGRHREVINIL-KKKPWFKKNP-FCLVPVLNSOGQLIYESAITC	90	
Qy	75	QYLERAFDPAPALLSDPYARAQARFWADYDKVYDCGSRWLKAGEPOAQAEMLDI	134	
Db	91	EYLDEAYP-GKLLPDDPYERA-----CQKMLELFSKVPISQNFEDYDG	141	
Qy	135	LK-----TLDGALGDK--PFFGGDKFGVDAAAPFTAFHFSYERYGESLPEVAPK	184	
Db	142	LKEEFKRTKLEEVLTNKKTTFFGGNSIMDYILWP---WFERLEAMKLNCEVDHTPK	198	
Qy	185	IAAWKRCGERESVAKSLYSPDKYDFIGL	214	
Db	199	LKILMAAKMEDPTVSALLTSKDMQGFLEL	228	

Search completed: July 1, 2003, 09:02:20
Job time : 22 secs